

Amendment to the Drawings:

The attached sheet of drawing includes the amendments to figure 3. This attached drawing replaces the original figure 3. The figure has been amended to remove sequences of SEQ ID NO: 5 and SEQ ID NO: 6 introduced to figure 3 in the amendment filed May 9, 2002.

Attachment: Replacement Sheet (1)

REMARKS/ARGUMENTS

New matter objection

The amendment filed May 9, 2002 to Figure 3 of the drawing is objected to under 35 U.S.C 132(a) as allegedly introducing new matter into the disclosure. Applicant has amended the drawing and hereby submits replacement sheet of Figure 3. The introduced nucleic acid sequences referred to as SEQ ID NO:05 and SEQ ID NO:06 have been removed. Applicant hereby states that no new matter has been entered with this amendment.

Sequences Rules Compliance

Sequences of SEQ ID NOs:5 and 6 have been deleted from Figure 3 of the current application. Therefore, transmitted herewith are a substitute copy of the Sequence Listing in paper form and a copy of the substitute Sequence Listing in computer readable form (two copies) as required by 37 C.F.R. 1.825. The machine format for the CD-ROMs is IBM-PC, the operating system compatibility is MS-WINDOWS XP, the disc contains a single file titled "3418.ST25.txt", the file size is 2KB and the compact discs were created on November 21, 2005.

As required, the undersigned hereby states that the content of the "Sequence Listing" in paper form and the computer readable form of the "Sequence Listing" are the same. The undersigned also hereby states that the amendments made included in the substitute Sequence Listing are supported in the application, as filed. Therefore, the undersigned states that this submission includes no new matter. Applicant requests that the specification be amended to replace the paper copy of the sequence listing with the attached substitute "Sequence Listing".

Objection to Specification

The specification has been objected because the phrases *5''-phosphorylated* and the *hydroxyl radical''s* on page 14 are allegedly confusing. The phrases have been amended to *5'-phosphorylated* and *hydroxyl radical's*. No new matter has been incorporated with these amendments.

Applicant has amended the specification to update the status of the US applications recited through the specification. No new matter has been incorporated with these amendments.

Drawing Objection

The sequences of SEQ ID NO:5 and SEQ ID NO:6 introduced to Figure 3 in the amendment filed 5/9/02 are removed as new matter. A replacement figure 3 reflecting the cancellation of the sequences is provided. Applicant asserts that no new matter is presented by these amendments and respectfully request entry of the same.

Rejection of Claims 21, and 23-28 Under USC § 103(a) ("Pugh and Walt")

Claims 21 and 23-28 stand rejected under 35 USC § 103(a) as allegedly being unpatentable over Pugh et al. "Genome Biology" (Vol. 2, pages 1013.1-1013.3, 2001)("Pugh") in view of Walt, D.R. "Science" (Vol. 287, pages 451-452, 1/21/2000)("Walt".) Claims 29-32 stand rejected under 35 USC § 103(a) as allegedly being unpatentable over Pugh and Walt and Shoemaker et al. (Nature, Vol. 409, pages 922-923, 2001). Applicant respectfully traverses.

MPEP section 2143 states to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, to combine the reference teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach all the claim limitations.

The Examiner has apparently concluded that one of ordinary skill in the art would have been motivated to combine the reference teachings of Pugh and Walt. Applicant disagrees.

In the present invention, methods of obtaining a profile of protein binding to genomic DNA of a biological sample are provided in which a plurality of candidate fragments obtained through DNA foot printing are hybridized with a collection of nucleic acid probes on a collection of beads or optical fibers. Pugh fails to disclose or suggest any method in which detection of the candidate fragments by hybridizing to nucleic acid probes that are immobilized on a collection of beads or optical fibers.

The Examiner thus relied on Walt as disclosing that fiber optic oligonucleotide arrays can be prepared by attaching DNA probes to micro spheres and then filling each well with a micro sphere carrying a different DNA probe.

Here the Examiner concludes that it would have been obvious to one of ordinary skill in the art that small size and flexibility of fiber optic array would have been desired. The current invention is directed to a method for obtaining a profile of protein binding to genomic DNA of a biological sample wherein the oligonucleotide probes tile genomic sequences of interest. Size and flexibility of fiber optic array will not benefit the invention the way Examiner had suggested. Walt merely discloses the use of bead arrays

on an optical fiber optic substrate. Walt fails to disclose or suggest any method in which to combine the reference teaching of Pugh, and Walt.

Without providing sufficient explanation why the combination of the references is proper, the Examiner erroneously relied on the ordinary skill of the art at the time as a motivation to combine the references.

For the reasons provided above with regard to each of Pugh and Walt, and in the absence of some motivation, other than hindsight recognition, that method for obtaining a profile of protein binding to genomic DNA of a biological sample by hybridizing the candidate fragments with a collection of nucleic acid probes where the nucleic acid probes are immobilized on a collection of beads or optical fibers, Applicant submits that a prima facie case of obviousness has not been set forth by the Office and respectfully requests that this rejection be withdrawn.

CONCLUSION

For these reasons, Applicant believes all pending claims are now in condition for allowance. If the Examiner has any questions pertaining to this application or feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 731-5000.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account 01-0431.

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

By Leticia R. Block
Leticia R. Block Reg. No. 50,167

Date: Nov. 21, 2005

Attachments:

- 1) Replacement Figure 3. (one sheet)
- 2) Substitute Sequence Listing in paper form (2 pages).
- 3) Substitute Sequence Listing in computer readable format (2 CDs)

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